

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Douglas R. Coffland, et al.	Docket No. :	IL-10360
Serial No. :	09/405,031	Art Unit :	2169
Filed :	09/24/1999	Examiner :	Jacob F. Betit
For :	SYSTEM AND METHOD FOR MULTIMEDIA ENCRYPTION		

Honorable Commissioner for Patents  
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

Dear Sir:

**APPELLANT'S REPLY BRIEF (37 C.F.R. § 1.192)**

This Reply Brief is submitted in response to the "Examiner's Answer." The Examiner's Answer was mailed October 30, 2008. One copy of the Reply Brief is being transmitted per 37 C.F.R. § 41.37.

Appellant's Brief is relied upon as responding to the issues in the Examiner's Answer; however, Appellant provides the following additional responses to specific points in the Examiner's Answer.

### **Reply Regarding "Random Noise Being Unpredictable"**

The Examiner's Answer states: "Claims 1, 10, 17, and 24 recite limitation "random noise being unpredictable from one moment to the next." This limitation is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art, at the time the application was filed, had possession of the claimed invention." (Examiner's Answer, Page 13, First Paragraph)

Appellant disagrees with this statement in the Examiner's Answer and will present a showing, in addition to the showing in Appellant's Brief, that the limitation is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that Appellant had possession of the claimed invention.

### **Appellant's Original Specification**

Appellant's original specification includes descriptions of the limitation "random noise being unpredictable from one moment to the next." For example the following quoted portions of Appellant's original specification include information and descriptions regarding Appellant's claim limitation "random noise being unpredictable from one moment to the next."

Page 7, lines 10-14 "In one embodiment of the present invention, the media signal need only include random transducer noise having a noise signal amplitude. Random noise is not the same a chaotic noise. Random noise, such as white Gaussian noise, is completely unpredictable from one moment to a next..."

Page 10, lines 17-21 & Page 11 lines 1-2 "In response to a key request 304 received from an external source (not shown), a control module 306

instructs a data acquisition module 308 to collect a set of data 309 from the compressed data stream 303. The data acquisition module 308 operating in conjunction with the data compression module 302 creates a robust source of random numbers in the set of data 309. This is due to unpredictable variability between the compressed data stream 303 and random selection of the set of data 309 therefrom.”

Page 12, lines 10-12 “Thus, the set of data 410 can cross over the frame boundaries 404 in a random manner, resulting in a highly random, and unpredictable set of data 309. The set of data 309 thus can function as a robust keyword seed.”

### **One Skilled in Art Knows Appellant Had Possession of Invention**

The level of skill of one skilled in the art is very high. It includes scientists with BS degrees in electrical engineering or computer sciences and advanced degrees in electrical engineering or computer sciences. The inventor Douglas R. Coffland is Division Leader - Security Engineering and Computation Division of the Lawrence Livermore National Laboratory whose computer operations are the best in the world. (TOP500 lists, www.llnl.gov website, EVIDENCE APPENDIX (IX) of Appellant’s Brief)

The high level of skill in the art supports Appellant’s position that the limitation “random noise being unpredictable from one moment to the next” is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that Appellant had possession of the claimed invention.

### **Presumption of Adequate Written Description**

There is a strong presumption that an adequate written description of the claimed invention is present when the application is filed. In re Wertheim, 541 F.2d 257,

263, 191 USPQ 90, 97 (CCPA 1976). MPEP § 2163 II.A.3 states, "An adequate written description of the invention may be shown by any description of sufficient, relevant, identifying characteristics so long as a person skilled in the art would recognize that the inventor had possession of the claimed invention." Appellants' specification taken as a whole supports the claim limitation "random noise being unpredictable from one moment to the next."

#### **Written Description Rejection Should be Reversed**

The Examiner's Answer statement that the limitation random noise being unpredictable from one moment to the next is not described in the specification in such a way as to reasonably convey to one skilled in the art that Appellant had possession of the claimed invention is incorrect. The rejection of Appellant's independent claims 1, 10, 17, and 24 and dependent claims 2-9, 11-16, 18-24, and 25-30 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement should be reversed.

#### **Appellants' Claims 1-30 Do Not Omit Essential Steps/Elements**

The Examiner's Answer contains the following statements:

"There is only one grounds of rejection given under 35 USC §112, second paragraph. Appellant has separated this rejection into two separate sections, however, the claims were found indefinite for failing to particularly point out and distinctly claim the subject matter which the Appellants regard as the invention because the were found to be omitting essential steps." (Examiner's Answer, Pages 2 and 3, Numbered Paragraph 6)

"In response to the Appellant's arguments directed towards the 35 U.S.C. § 112 second paragraph rejection stating that the claim is directed towards "a system adapted for use for multimedia encryption", "a method adapted for use for multimedia encryption", or "a computer-usable medium embodying computer code adapted for use for multimedia encryption", the arguments have been considered, but are not deemed persuasive. Appellant has failed to point to any step in the claim that results in multimedia encryption as required by the preamble. Therefore the claims are deemed to be missing this step/element of multimedia encryption." (Examiner's Answer, Page 10, First Paragraph)

### **There Are No Essential Steps/Elements Omitted**

Appellant disagrees with the statements in the Examiner's Answer "the claims are deemed to be missing this step/element of multimedia encryption."

Independent claims 1, 10, 17, and 24 meet the requirements of 35 U.S.C. § 112, second paragraph, and are not incomplete for omitting essential steps/elements. There are four (4) independent claims on appeal, claims 1, 10, 17, and 24. Each of the independent claims has a specific preamble. Independent claims 1 and 17 set out specific enumerated structural elements. Independent claims 10 and 24 set out specific method steps.

### **Independent Claim 1**

The preamble of independent claim 1 is: "A system for multimedia encryption."

Claim 1 includes a combination of structural elements that produce the system for multimedia encryption. The structural elements are:

"acquisition means for acquiring a media signal, said acquisition means including a random noise transducer for acquiring random noise only, said random noise being completely unpredictable from one moment to the next and not being chaotic noise;

data compression means coupled to said acquisition means to receive and compress said media signal containing random noise that is completely unpredictable from one moment to the next and not being chaotic noise into a compressed data stream;

data acquisition means coupled to said data compression means to receive and select a set of data from the compressed data stream; and

hashing means coupled to said data acquisition means to receive and hash the set of data into a keyword."

These structural elements produce the system for multimedia encryption. There are no essential structural elements omitted. Appellants' submits that independent claim 1 is not incomplete for omitting essential elements and claim 1 meets the requirements of 35 U.S.C. § 112, second paragraph.

#### Independent Claim 10

The preamble of independent claim 10 is: "A method for multimedia encryption." Claim 10 includes a combination of steps that produce the method for multimedia encryption." The steps are:

"acquiring a random noise only media signal containing random noise that is completely unpredictable from one moment to the next and not being chaotic noise;

compressing said random noise only media signal containing random noise that is completely unpredictable from one moment to the next and not being chaotic noise;

selecting a set of data from the compressed media signal; and

hashing the set of data into a keyword."

These steps produce the method for multimedia encryption. There are no essential steps omitted. Appellant submits that independent claim 10 is not incomplete for omitting essential steps and claim 10 meets the requirements of 35 U.S.C. § 112, second paragraph.

#### Independent Claim 17

The preamble of independent claim 17 is: "A system for multimedia encryption." Claim 17 includes a combination of structural elements that produce the system for multimedia encryption. The structural elements are:

acquisition means for acquiring a media signal, said acquisition means including a random noise transducer for acquiring said media signal, said random noise transducer acquiring said media signal containing only random noise that is completely unpredictable from one moment to the next and not being chaotic noise;

data compression means coupled to said acquisition means to receive and compress said media signal containing random noise that is completely unpredictable from one moment to the next into a compressed data stream;

selection means coupled to said data compression means for selecting a set of data from the compressed data stream; and

hashing means coupled to said selection means for hashing the set of data into a keyword.

These structural elements produce the system for multimedia encryption. There are no essential structural elements omitted. Appellants' submits that independent claim 17 is not incomplete for omitting essential elements and claim 17 meets the requirements of 35 U.S.C. § 112, second paragraph.

#### Independent Claim 24

The preamble of independent claim 24 is: "A computer-useable medium embodying computer program code for multimedia encryption." Claim 24 includes a combination of steps. The steps are:

acquiring a random noise only media signal, said random noise only media signal containing random noise that is completely unpredictable from one moment to the next and not being chaotic noise;

compressing said random noise only media signal, said random noise only media signal containing random noise that is completely unpredictable from one moment to the next and not being chaotic noise;

selecting a set of data from the compressed media signal; and

hashing the set of data into a keyword.

These steps produce the computer-useable medium embodying computer program code for multimedia encryption. There are no essential steps omitted.

Appellant submits that independent claim 24 is not incomplete for omitting essential steps and claim 24 meets the requirements of 35 U.S.C. § 112, second paragraph.

#### **Omitting Essential Steps/Elements Rejection Should Be Reversed**

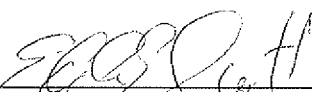
There are no essential steps/structural elements of claims 1-30 omitted. The rejection of claims 1-30 under 35 U.S.C. § 112, first paragraph, as allegedly being incomplete for omitting essential steps/elements should be reversed.



**Rejection of Claims on Appeal Should Be Reversed**

The rejection of Appellants' claims on appeal should be reversed. It is respectfully requested that Appellants' claims 1-30 on appeal be allowed.

Respectfully submitted,

By: \_\_\_\_\_

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